UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,168	06/24/2003	George W. Erhart	502073-A-01-US (Erhart)	9438

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EXAMINER
GAUTHIER, GERALD

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/602,168	ERHART ET AL.
	Examiner	Art Unit	
	Gerald Gauthier	2645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 January 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-23</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-23</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>11 August 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6/24/03, 1/3/05</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement submitted on January 03, 2005 and on

June 24, 2003 was received. The submission is in compliance with the provisions of 37

CFR 1.97. Accordingly the examiner is considering the information disclosure

statement.

Drawings

2.   The drawings were received on August 11, 2003. These drawings are

acceptable.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

5.   This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6.   **Claim(s) 1-10 and 12-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gandhi et al. (US 2004/0015351 A1) in view of Farrell (US 6,721,416 B1).

Regarding **claim(s) 1**, Gandhi discloses a method for validating a textual entry of spoken words of a caller (FIG. 5 and paragraph 0002), comprising:

monitoring a textual entry of the spoken words (FIG. 5 and paragraph 0040) [The test personnel can listen to the audio segments and manually transcribe the user spoken utterances and includes the text with the information extracted, thereby monitoring a textual entry of the spoken words];

converting the spoken words to text using a speech recognition technique (FIG. 5

and paragraph 0040) [The speech engine process the audio segments to determine the

recognized text, thereby converting the spoken words to text using a speech recognition

technique]; and

comparing the textual entry to the converted text to confirm an accuracy of the

textual entry (FIG. 5 and paragraph 0043) [The reference speech recognition results is

compared to the manually derived text, thereby comparing the textual entry to the

converted text to confirm an accuracy of the textual entry].

Gandhi discloses the speech recognition system manages telephone calls from

the users (paragraph 0024) but fails to disclose a system that receives a telephone call

from the caller.

However, Farrell in the same field of endeavor teaches a method that receives a

telephone call from the caller (FIG. 1 and 4 and column 5, lines 11-21) [The call start s

with an inbound call from a caller].

Therefore, it would have been obvious to one of the ordinary skill in the art at the

time the invention was made to modify the speech recognition system of Gandhi using

the PBX as taught by Farrell.

This modification of the invention enables the system to receive telephone calls

as commands so that the system would provide useful information based on the state of

the interaction (Farrell: column 1, lines 46-50).

Regarding **claim(s) 2**, Gandhi as modified discloses a method for validating a textual entry of spoken words of a caller, further comprising the step of recording the spoken words (FIG. 2 and paragraph 0029) [The speech recognition system 205 records the actual user speech and stores it within the audio data store 225].

Regarding **claim(s) 3**, Gandhi as modified discloses a method for validating a textual entry of spoken words of a caller, further comprising the step of time-stamping the recording (FIG. 5 and paragraph 0039) [The transaction logs stores information such as the date and time information of the recording].

Regarding **claim(s) 4**, Gandhi in combination with Farrell as applied to **claim(s) 1** above differ from **claim(s) 4**.

Furthermore, Farrell teaches the step of constraining the comparing step to a recent audio stream (FIG. 1 and 4 and column 6, lines 1-11) [The voice application 62 searches the text and checks whether it is the agent or caller who has take confrontation value over the threshold as the conversation is going, thereby constraining the comparing step to a recent audio stream].

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the speech recognition system of Gandhi using the PBX as taught by Farrell.

This modification of the invention enables the system to constrain the comparing step to a recent audio stream so that the system would provide useful information based on the state of the interaction (Farrell: column 1, lines 46-50).

Regarding **claim(s) 5**, Gandhi in combination with Farrell as applied to **claim(s) 1** above differ from **claim(s) 5**.

Furthermore, Farrell teaches the step of constraining the comparing step to a recent audio stream corresponding to a completed field in a user interface (FIG. 1 and 4 and column 6, lines 1-11) [The voice application 62 searches the text and checks whether it is the agent or caller who has take confrontation value over the threshold and flashes on the screen a counter confrontational phrase, thereby constraining the comparing step to a recent audio stream corresponding to a completed field in a user interface].

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the speech recognition system of Gandhi using the PBX as taught by Farrell.

This modification of the invention enables the system to constrain the comparing step to a recent audio stream corresponding to a completed field in a user interface so that the system would provide useful information based on the state of the interaction (Farrell: column 1, lines 46-50).

Regarding **claim(s) 6**, Gandhi in combination with Farrell as applied to **claim(s) 1** above differ from **claim(s) 6**.

Furthermore, Farrell teaches the step of constraining the comparing step to a recent audio stream since a previous field was completed (FIG. 1 and 4 and column 6, lines 1-11) [The voice application 62 searches the text and checks whether it is the agent or caller who has take confrontation value over the threshold as the conversation is going and flashes either a warning or a counter confrontational phrase to the agent based on the previous dialog field, thereby constraining the comparing step to a recent audio stream since a previous field was completed].

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the speech recognition system of Gandhi using the PBX as taught by Farrell.

This modification of the invention enables the system to constrain the comparing step to a recent audio stream since a previous field was completed so that the system would provide useful information based on the state of the interaction (Farrell: column 1, lines 46-50).

Regarding **claim(s) 7**, Gandhi as modified discloses a method for validating a textual entry of spoken words of a caller, further comprising the step of notifying an agency of an error (FIG. 6-9 and paragraph 0046) [The transaction selection GUI 700 is presented to the test personnel for error and manual verification process by play the audio segment].

Regarding **claim(s) 8**, Gandhi as modified discloses a method for validating a textual entry of spoken words of a caller, further comprising the step of correcting a detected error (FIG. 6-9 and paragraph 0046) [The test personnel can correct errors found in the transcribed text by listen to the spoken words].

Regarding **claim(s) 9**, Gandhi as modified discloses a method for validating a textual entry of spoken words of a caller, further comprising the step of suggesting at least one alternative for a detected error (FIG. 5 and paragraph 0040) [The test personnel listen to the spoken words as an alternative to the detected error].

Regarding **claim(s) 10**, Gandhi as modified discloses a method for validating a textual entry of spoken words of a caller, further comprising the step of selecting the speech recognition technique based on properties of the spoken words (FIG. 5 and paragraph 0040 and 0041) [The test personnel based on conditions of the recognition results that the speech recognition system may not be able to detect therefore transcribe the user spoken utterance to text, thereby selecting the speech recognition technique based on properties of the spoken words].

Regarding **claim(s) 12**, Gandhi discloses an apparatus for validating a textual entry of spoken words of a caller (FIG. 5 and paragraph 0002), comprising:

a memory (FIG. 2 and paragraph 0029) [The data store 220]; and

at least one processor (230 on FIG. 2 , coupled to the memory (FIG. 2 and

paragraph 0032) [The statistical processor 230 can access the data store 220],

operative to:

monitor a textual entry of the spoken words (FIG. 5 and paragraph 0040) [The

test personnel can listen to the audio segments and manually transcribe the user

spoken utterances and includes the text with the information extracted, thereby monitor

a textual entry of the spoken words];

convert the spoken words to text using a speech recognition technique (FIG. 5

and paragraph 0040) [The speech engine process the audio segments to determine the

recognized text, thereby convert the spoken words to text using a speech recognition

technique]; and

compare the textual entry to the converted text to confirm an accuracy of the

textual entry (FIG. 5 and paragraph 0043) [The reference speech recognition results

can be compared to the manually derived text, thereby compare the textual entry to the

converted text to confirm an accuracy of the textual entry].

Gandhi discloses the speech recognition system manages telephone calls from

the users (paragraph 0024) but fails to disclose a system that receives a telephone call

from the caller.

However, Farrell in the same field of endeavor teaches a method that receives a

telephone call from the caller (FIG. 1 and 4 and column 5, lines 11-21) [The call start s

with an inbound call from a caller].

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the speech recognition system of Gandhi using the PBX as taught by Farrell.

This modification of the invention enables the system to receive telephone calls as commands so that the system would provide useful information based on the state of the interaction (Farrell: column 1, lines 46-50).

Regarding **claim(s) 13**, Gandhi in combination with Farrell as applied to **claim(s) 12** above differ from **claim(s) 13**.

Furthermore, Farrell teaches the processor is further configured to constrain the comparison to a recent audio stream (FIG. 1 and 4 and column 6, lines 1-11) [The voice application 62 searches the text and checks whether it is the agent or caller who has take confrontation value over the threshold as the conversation is going, thereby constraining the comparing step to a recent audio stream].

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the speech recognition system of Gandhi using the PBX as taught by Farrell.

This modification of the invention enables the system to constrain the comparison to a recent audio stream so that the system would provide useful information based on the state of the interaction (Farrell: column 1, lines 46-50).

Regarding **claim(s) 14**, Gandhi as modified discloses an apparatus for validating a textual entry of spoken words of a caller, wherein the processor is further configured to notify an agent of an error (FIG. 6-9 and paragraph 0046) [The transaction selection GUI 700 is presented to the test personnel for error and manual verification process by play the audio segment].

Regarding **claim(s) 15**, Gandhi as modified discloses an apparatus for validating a textual entry of spoken words of a caller, wherein the processor is further configured to correct a detected error (FIG. 6-9 and paragraph 0046) [The test personnel can correct errors found in the transcribed text by listen to the spoken words].

Regarding **claim(s) 16**, Gandhi as modified discloses an apparatus for validating a textual entry of spoken words of a caller, wherein the processor is further configured to suggest at least one alternative for a detected error (FIG. 5 and paragraph 0040) [The test personnel listen to the spoken words as an alternative to the detected error].

Regarding **claim(s) 17**, Gandhi as modified discloses an apparatus for validating a textual entry of spoken words of a caller, wherein the processor is further configured to select the speech recognition technique based on properties of the spoken words (FIG. 5 and paragraph 0040 and 0041) [The test personnel based on conditions of the recognition results that the speech recognition system may not be able to detect

therefore transcribe the user spoken utterance to text, thereby selecting the speech

recognition technique based on properties of the spoken words].

Regarding **claim(s) 18**, Gandhi discloses an article of manufacture for validating

a textual entry of spoken words of a caller, comprising a machine readable medium

containing one or more programs (FIG. 5 and paragraph 0051) which when executed

implement the steps of:

monitor a textual entry by of the spoken words (FIG. 5 and paragraph 0040) [The

test personnel can listen to the audio segments and manually transcribe the user

spoken utterances and includes the text with the information extracted, thereby monitor

a textual entry by of the spoken words];

convert the spoken words to text using a speech recognition technique (FIG. 5

and paragraph 0040) [The speech engine process the audio segments to determine the

recognized text, thereby convert the spoken words to text using a speech recognition

technique]; and

compare the textual entry to the converted text to confirm an accuracy of the

textual entry (FIG. 5 and paragraph 0043) [The reference speech recognition results

can be compared to the manually derived text to test the accuracy of the text entry].

Gandhi discloses the speech recognition system manages telephone calls from

the users (paragraph 0024) but fails to disclose a system that receives a telephone call

from the caller.

However, Farrell in the same field of endeavor teaches a method that receives a

telephone call from the caller (FIG. 1 and 4 and column 5, lines 11-21) [The call start s

with an inbound call from a caller].

Therefore, it would have been obvious to one of the ordinary skill in the art at the

time the invention was made to modify the speech recognition system of Gandhi using

the PBX as taught by Farrell.

This modification of the invention enables the system to receive telephone calls

as commands so that the system would provide useful information based on the state of

the interaction (Farrell: column 1, lines 46-50).

7.   **Claim(s) 19-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Farrell in view of Bowater et al. (US 6,278,772 B1).

Regarding **claim(s) 19**, Farrell discloses a method for validating a spoken

delivery of a textual script (FIG. 1 and column 1, lines 6-9), comprising:

monitoring a spoken delivery of the textual script (FIG. 1 and 4 and column 5,

lines 22-31) [The agent voice signal and the caller voice signal are copied at the PBX 20

to be transmitted to the telephony platform, thereby monitoring a spoken delivery of the

textual script];

converting the spoken delivery to text using a speech recognition technique (FIG.

1 and 4 and column 5, lines 32-37) [The voice signal from either party is transmitted to

the automatic speech recognition server 54 and a text string is passed on the voice

application 62, thereby converting the spoken delivery to text using a speech

recognition technique]; and

comparing the textual script to the converted text (FIG. 1 and 4 and column 5,

lines 38-47) [The voice application 62 searches the text for occurrences of the words or

phrases in the word table 64 and acquires a score for any hits, thereby comparing the

textual script to the converted text].

Farrell discloses the comparison of the converted text to a text table but fails to

disclose comparing the text to confirm an accuracy of the spoken delivery.

However, Bowater in the same field of endeavor teaches comparing the text to

confirm an accuracy of the spoken delivery (FIG. 1 and column 3, lines 9-19) [The text

and the voice data are saved on a CD ROM to later check the accuracy of the voice

recognition, thereby confirms an accuracy of the spoken delivery].

Therefore, it would have been obvious to one of the ordinary skill in the art at the

time the invention was made to modify the voice application of Farrell using the voice

processing as taught by Bowater.

This modification of the invention enables the system to confirm an accuracy of

the spoken delivery so that the text version and the voice version of the textual script

would be necessary in a court of law (Farrell: column 3, lines 14-19).

Regarding **claim(s) 20**, Farrell as modified discloses a method for validating a

spoken delivery of a textual script, further comprising the step of constraining the

comparing step to a recent audio stream (FIG. 1 and 4 and column 6, lines 1-11) [The

voice application 62 searches the text and checks whether it is the agent or caller who

has take confrontation value over the threshold, thereby constraining the comparing

step to a recent audio stream].

Regarding **claim(s) 21**, Farrell as modified discloses a method for validating a

spoken delivery of a textual script further comprising the step of notifying an agent of an

error (FIG. 1 and 4 and column 6, lines 1-11) [The voice application 62 flashes the polite

word on the screen to the agent as a warning, thereby notifying an agent of an error].

8.   **Claim(s) 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Gandhi in view of Farrell as applied to **claim(s) 1** above, and further in view of Epstein

(US 6,754,626 B2).

Regarding **claim(s) 11**, Gandhi in combination with Farrell as applied to **claim(s)**

1 above differ from **claim(s) 11** in that it fails to disclose the accuracy is confirmed by

comparing a confidence score to a threshold value.

However, Epstein, in the same field of endeavor, teaches a method for validating

a textual entry of spoken words of a caller, wherein the accuracy is confirmed by

comparing a confidence score to a threshold value (FIG. 6 and column 13, lines 5-17)

[The speech recognition system can identify text with a confidence score above a

predetermined minimum threshold value].

Therefore, it would have been obvious to one of the ordinary skill in the art at the

time the invention was made to modify the speech recognition system of Gandhi as

modified using the recognition system as taught by Epstein.

This modification of the invention enables the system to generate a confidence

score to a threshold value so that the system would identify one contextual model

producing text.

9.   **Claim(s) 22** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Farrell in view of Bowater as applied to **claim(s) 19** above, and further in view of

Gandhi.

Regarding **claim(s) 22**, Farrell in combination of Bowater as applied to claim(s)

19 above differ from claim(s) 22, in that it fails to disclose the step of selecting the

speech recognition technique based on properties of the textual script.

However, Gandhi, in the same field of endeavor, teaches the step of selecting

the speech recognition technique based on properties of the textual script (FIG. 5 and

paragraph 0040 and 0041) [The test personnel based on conditions of the recognition

results that the speech recognition system may not be able to detect therefore

transcribe the user spoken utterance to text, thereby selecting the speech recognition

technique based on properties of the textual script].

Therefore, it would have been obvious to one of the ordinary skill in the art at the

time the invention was made to modify the voice application of Farrell as modified using

the speech recognition system as taught by Gandhi.

This modification of the invention enables the system to select the speech

recognition technique based on properties of the textual script so that the system would

guide the user through a series of GUI to determine the accuracy of the speech

recognition (Gandhi: paragraph 0009).

10.   **Claim(s) 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over

Farrell in view of Bowater as applied to **claim(s) 19** above, and further in view of

Epstein.

Regarding **claim(s) 23**, Farrell in combination with Bowater as applied to

claim(s) 19 above differ from **claim(s) 23** in that it fails to disclose the accuracy is

confirmed by comparing a confidence score to a threshold value.

However, Epstein in the same field of endeavor teaches a method for validating a

spoken delivery of a textual script, wherein the accuracy is confirmed by comparing a

confidence score to a threshold value (FIG. 6 and column 13, lines 5-17) [The speech

recognition system can identify text with a confidence score above a predetermined minimum threshold value].

Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the voice application of Farrell using the recognition system as taught by Epstein.
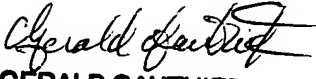
This modification of the invention enables the system to generate a confidence score to a threshold value so that the system would identify one contextual model producing text.

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald Gauthier whose telephone number is (571) 272-7539. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

GERALD GAUTHIER
PATENT EXAMINER

Gerald Gauthier
Examiner
Art Unit 2645

g.g.
May 31, 2005